

REMARKS/ARGUMENTS

Claims 1 – 22 are pending in the application.

With regard to Applicant's independent claims 1 and 9, in conjunction with the drawings, and in particular Fig. 2, a method and apparatus for determining the amount of gas contained in a liquid are provided. In particular, at the connector 30, a liquid, in which is dissolved a gas that is to be measured, is sprayed into the air or gas atmosphere of the stripping chamber 11 at the stripping nozzle 32, thereby stripping gas from the liquid. The gas or air atmosphere in the stripping chamber 11 is produced by the introduction of air or gas into the stripping chamber at the connector 28. The stripped gas is subsequently sensed and measured.

The method and apparatus of the present application thus provide a straightforward and inexpensive way for determining the amount of gas, such as ozone, that is contained in a liquid, such as water. In contrast to the prior art, Applicant's method and apparatus do not require highly trained personnel to operate complicated and expensive devices.

The Examiner has rejected, among others, apparatus claim 9 as being anticipated by Thompson. However, Applicant respectfully submits that Thompson is not a valid reference under 35 USC 102(b) because it does not teach every element of the claim. In particular, as stated in the last paragraph of MPEP section 2131, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference". This section of the MPEP goes on to state that "the identical invention must be shown in as much complete detail as is contained in the ... claim".

Thompson falls short in that it neither teaches nor suggests a stripping or spray nozzle as required by Applicant's claim 9. Rather, as shown in Fig. 1, Thompson provides a directing means 80, such as a tube, which provides a stream 205 of liquid 210 to the inside wall 90 of the container 60 (see column 4, lines 30 – 32). As further stated in column 4, starting at line 60, the stream of liquid 205 is directed, by the directing means 80, against the inside wall 90 at a force sufficient to atomize liquid 210 to form atomized liquid 220. In other words, rather than spraying out liquid to atomize it, as required by Applicant's claims, the directing means 80 of Thompson merely directs a stream of liquid against a wall, where the impact subsequently atomizes the liquid. Thus, it is respectfully submitted that Thompson can in no way teach or even suggest a nozzle. Furthermore, substituting Applicant's stripping or spray nozzle for Thompson's streaming directing means would also be impermissible pursuant to the last paragraph of MPEP section 2143.01, which states that if a proposed modification or combination of prior art would change a principle of operation of the prior art being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. In particular, providing Thompson with a nozzle would change the principle of operation of directing a stream against a wall in order to atomize the liquid.

It should also be noted that Thompson requires a pump 30 for continuously displacing liquid 210 into the extraction means 20. In contradistinction to this requirement, not only is no pump used with the method and apparatus of the present application, but a pressure regulator could even be provided in the tubing 15 that conveys the liquid in which gas is dissolved to the stripping chamber 11 to bring the pressure down rather than increasing it (see page 9, lines 17 – 19, of the

specification of the instant application). The Examiner's attention is also directed to Applicant's newly submitted claims 17 – 22.

With regard to the combination of Thompson with Tikijian, it is respectfully submitted that there would be no motivation to combine the agitation device of Tikijian with Thompson, so that this combination of references would not be appropriate. Furthermore, such a combination of references would again change the principle of operation of Thompson which as discussed above would again provide for an inappropriate combination of references.

With regard to the Baykut reference, again such a combination would change the principle of operation of Thompson. Furthermore, since Thompson teaches how to direct a stream of liquid against a wall in order to provide atomization, it is furthermore respectfully submitted that Thompson teaches away from the use of a nozzle, and would thus also not be an appropriate reference under the last paragraph of MPEP section 2144.05 III., which states in part that a prima facie case of obviousness may be rebutted by showing that the art, in any material respect, teaches away from the claimed invention. In this regard, the Examiner's attention is also respectfully directed to MPEP section 2145 X. C. and D.

With regard to the Conrad reference, which relates to the treatment of contaminated water by passing ozone therethrough, it is respectfully submitted that not only is there no motivation to combine this reference with the previously cited references, as a matter of fact with regard to the Thompson reference such a combination could not even be considered in view of the fact that the gear pump used by Thompson operates with meshing gear teeth that would destroy a large percentage of the dissolved ozone, with the shearing energy taking place between

the dissolved gas in the solution causing the ozone to convert back to elemental oxygen.

In view of the foregoing discussion, Applicant respectfully requests reconsideration of the allowability of all of pending claims 1 – 22. In addition, should the Examiner have any further comments or suggestions, the undersigned respectfully requests a telephone interview in order to discuss any outstanding issues, including claim amendments, and to expedite placement of the application into condition for allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert W. Becker", with a stylized flourish at the end.

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